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An

Inaugural Essay

On the use

of

PRUSSIAT OF IRON

as a remedy in

Intermittent Fevers &c

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When any new medicine is ushered forth, accompanied as it too frequently is, with the highest encomiums on its powers and excellence, and proclaimed superior to others, long used in practice, and well established by experience. When the sources from which it proceeds are ever known to be high and respectable, we should, nevertheless, before adopting implicitly the declarations of any one, cautiously try, and carefully compare the results of the new medicine, with those which we were taught to employ, and whose efficacy we have seen confirmed by practice and experience. In many instances the facts given, may be intrinsically correct, but the deductions may be falsely drawn. In others, useful remedies, may be denounced, or unfairly considered, and

thereby have a tendency to induce a greater degree of confidence, in the powers of a new and favourite medicine, than future experience will justify, and the article itself merit. By the too hasty adoption of a practice thus founded, many may be led to commit highly dangerous errors. And this remark is not the least applicable to intermittent fevers, the consequences of which, are oftimes serious, and not unfrequently fatal.

The subject of this thesis, has been suggested by the paper of Dr. Zollickoffer, of Frederick county, Maryland, consisting of a statement of several "cases, illustrative of the remedial powers of Prussiat of Iron, in Intermitting and Remitting fevers", and some deductions drawn therefrom, as published in the fifth volume of the American Medical Recorder. And, also, from having heard that considerable confidence was reposed in it, by several physicians of this city, who have been using it since the publication of the paper, above mentioned.

An opportunity, as good perhaps, as could any where be found, of testing the real utility of this medicine, was afforded me, by my situation, as resident, sur-

-dent in the Philadelphia Alms-house, where great num-
-bers of patients affected with this disease came for treatment.
I had here too, an opportunity of comparing the success of
a variety of other medicines, employed for the same pur-
-pose in intermittents, with the Prussiat of Iron; but of
all others, not commonly used, this was most extensively
employed. It was prescribed by the attending physician
Doctor Jackson, and more or less, by several of the students
of the House. It was exhibited in all the forms of inter-
-mittent; in its different stages; and it was taken during
the apyrexia. And in all the cases which came under
my care; prior to the administration of the Prussiat
of Iron, or any other medicine exhibited with the same
view, the stomach was evacuated by an emetic, or the
alimentary canal by a mercurial purge. Emetics how-
-ever were prefered, and consequently more generally
employed: the following combination was frequently
used,

℞ : Pulv Ipecac ʒj

Tart antimon grj m

This prescription often answered a two fold purpose, by
producing vomiting, and operating upon the bowels at the
same time. Occasionally, however, calomel was given, and

followed in a few hours by castor oil, or some one of the neu=
=tral salts. The system thus well prepared for its recep=
=tion, it was administered in doses of five grains, three or
four times in the day. In the generality of cases, it was ex=
=hibited during the apyrexia; in others however, it was
directed to be taken in the different stages of the disease:
with the view, to ascertain the fullest extent of its powers,
and, determine whether, it really possessed to any extent the
qualities recently claimed for it in intermittents, and whether,
it would prove, indeed superior, to the justly celebrated
Cort cinchona.

It did appear necessary to note down in detail
the different forms of the disease; the habits, age, and mode
of living, of each patient to whom the Prussiat of Iron was
administered. The tertian was by far the most common form,
next the quotidian, the quartan was rarely seen. The patients
in general were labouring men; and their habits and man=
=ners of living very similar, from the circumstance of nearly
all coming from the same place, they having been engaged
working at the canals along the Schuylkill, the neighbour=
=hood of which is remarkable for the prevalence of this
disease, which commences early in the autumnal months

and continues uninterrupted, till it is finally arrested by by the accession of cold weather.

The number of cases in which this article was employed, amounted as near as can be recollected to forty. This number was considered amply sufficient to ascertain its virtues in the disease, if any it possessed.

I will now however, before stating my observations on the powers of this medicine, take the liberty of inserting a few extracts from the paper of Dr Zollickoffer, as published in the Recorder; a remark or two of Dr Eberle taken from his work on Materia Medica and Therapeutics, and shew hereafter, (admitting at the same time, the cures said to have been effected by this medicine, as they doubtless were, to be correct,) that the deductions drawn therefrom are erroneous, and so far from recommending such an article to the employment or consideration of physicians, have quite a reverse effect. The statement of Dr Zollickoffer as will be presently seen, is of such a candid character as to destroy itself, without the aid of Dr Eberle's experience with the medicine, which is any thing, but encouraging to employ it. Notwithstanding, he says, "It has been employed with considerable

success. These, and like statements, however, will not, I imagine, be difficult to explain.

I will now proceed to give some extracts from the paper of Dr. Zollickoffer. He describes the Brussiat of Bon as possessing the following advantages over the Peruvian bark as a remedy in intermitting and remitting fevers, and First. "It is void of taste, and may therefore be much more readily given to children than the Pale Cinchona, which to some is extremely unpleasant.

Secondly. The dose is much smaller being from four to six grains, twice or thrice a day, or every three hours, while bark to be effectual must be given in much larger doses.

Thirdly. In its effects as a remedy calculated to prevent the recurrence of future paroxysms, it is more certain, prompt, and effectual, than the justly celebrated Cort Cinchona, and Fourthly, "A patient treated with this article will recover from the influence of intermitting and remitting fevers, in the generality of cases, in much less time than is usual with cases treated with bark." Several cases are next adduced in evidence of its efficacy in the diseases mentioned.

With regard to the two first rules layed down

assuredly, no objections can be urged; on the contrary, it would seem desirable, that such medicines as are void of taste, should be sought after and employed, provided, in so doing we do not cast away important and useful remedies, by giving a preference on these accounts to inferior articles. And if the Prussiat of Iron was not inferior to the Peruvian bark, these would indeed, be important considerations.

But we differ widely in our estimate of its powers in preventing the recurrence of future paroxysms. Dr Tollichoffer avers, that it is "more certain, prompt, and effectual, than the justly celebrated Cort cinchona". Directly the reverse of this, have I uniformly found the consequence of its employment. For, in every case the disease was protracted, and not unfrequently attended with nausea, and sometimes vomiting: paroxysm after paroxysm recured, till finally the treatment was abandoned, and a more efficacious one substituted; and even in those cases where the Prussiat of Iron, did evince some power in ultimately removing them, it was not until after repeated paroxysms its effects were produced; and the patients thus worn out by the long continuance of the disease, were detained from debility in the Infirmary, longer than those who were treated

after the mode generally pursued.

If then, I may be allowed to judge from the many cases I have known and seen of its effects, I must say, that the Prussiat of Iron, certainly does not deserve to be compared in point of efficacy, with many of the Tonics occasionally used in intermittents, indubitably inferior to the Pulv Cinchona. It indeed, seems to me to be much inferior to arsenic, sulphur, serpentaria, and many other medicines not unfrequently used.

This, therefore, is in direct variance with the observations and experience of the writer in the Recorder: how it should so happen is to me unaccountable; but, as it is so, and, as I have undertaken to state the trials made with the medicine, it is but justice, to do so correctly. Whether the difference in the habits and ways of living, of the different class of individuals, in whose cases it was employed, or whether local peculiarities will have any weight in explaining, why the same medicine should produce so opposite effects, will perhaps be difficult to determine.

Dr Jollichoffer remarks, "that in making use of the Prussiat of Iron, care must be taken to select that which

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is of a very dark blue approaching to black, having a shining coppery fracture, and adhering firmly to the tongue. It may therefore be proper to state that the Prussiat of Iron, used in this institution in a majority of the cases was of a very superior quality: it was pronounced by Dr Harlan, and others, well qualified to judge, to be the best they had ever seen. It cannot therefore, be said that the failure was in any measure owing, or justly can be attributed to, the quality of the article employed. These remarks are made from the circumstance of so precise a description of the article having been layed down in the paper alluded to, whereby we are to judge of its quality and fitness, in the diseases in which it is recommended to be used, and independent of this, it may perhaps be necessary for other considerations.

In the paper of Dr Tollickoffer, eleven cases are stated, which he thinks will confirm the opinion he has expressed, of the superiority of the Prussiat of Iron, over the Peruvian bark, as a remedy in intermitting fevers. Of this number the medicine proved efficient in eight cases, five of which were children, and three adults, the three cases in which it failed were children. It would appear

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therefore, from this statement that the Prussiat of Iron is better adapted to the cases of adults, than to those of children, inasmuch as cures were effected in all the cases of the former, and but in five out of eight cases in the latter. Whether this however, or any other medicine belonging to the class to which it has been lately attached, possesses such a peculiarity is very doubtful and would not perhaps, be worth the time to enquire. But really, taking this very statement as the standard, whereby to judge of the efficacy of the article, without reference to any other experiments with it. I cannot see how the word furnished, can justify the conclusion, of its superiority to the bark. To succeed in three out of four cases, is certainly no high recommendation of its utility, for I am much deceived if the cures accomplished by the Peruvian bark, will not be found to exceed, by far, this proportion. The success of the Peruvian bark, as is well known by all the gentlemen who were attached to the Infirmary during the past season far surpassed the Prussiat of Iron, in curing intermittents, even in the hands of Dr Lollichoffer. The cures effected with the bark may justly be stated, to have been nine out of ten cases, the fact being established by more than one example, and remarked by more than one individual.

It may not be amiss to mention that the following prescription was extensively used, viz

℞ Pulv Cinchon opt. - ℥ß
Confect Opii - - ℥j
✓ Citric acid concrete ʒj ✓
✓ Vin rubrum ℥viij. m. And to be taken in three draughts during the apyrexia. This formula was introduced into the institution by Dr Jackson, and was found decidedly superior to the bark alone, or any of its various combinations; and in the calculation of the proportionate number of cures effected with the bark this preparation of it was included.

Dr Eberle, in his work does no more, than repeat in the abstract the statement of Dr Dollichoffer. He however was not quite so successful, having failed in three out of six cases, but nevertheless, would recommend it as deserving of attention.

It may be, that these gentlemen were peculiarly unfortunate in the employment of the Peruvian bark - a remedy which from its beginning has displayed such unrivalled powers, over a disease so prevalent and mischievous, or, what is more likely, they have not given due consideration to

other older and well tested medicines which they obviously merited, and were justly entitled to receive. It is to this circumstance then, of having overlooked the virtues of other and more efficient remedies, that the Prussiat of Iron is declared superior to the cort cinchona. I have said other and more efficient remedies, because I have yet to learn, that this article is not inferior to serpentaria, sulphur, arsenic, and a variety of other medicines, whose powers over the disease have been fully confirmed by time and trial. A cold infusion of the Eupatorium Perfoliatum, a remedy much used in New York, I have several times seen very promptly succeed in arresting an intermittent fever. The powers of arsenic are every where known, and properly appreciated. Serpentaria is daily used, and sulphur is not unfrequently prescribed. And to enumerate every medicine which appears to be superior to the Prussiat of Iron, would no doubt, be idle and unnecessary.

The Prussiat of Iron has been used, and it is said with no little advantage in arresting Uterine Hemorrhages; and here too as in intermittent fever, it is declared superior to a remedy, which by many physicians is almost held to be a specific in the disease. The dose directed to be taken in Menorrhagia, is ten grains every two

hours until the flow of blood shall be arrested, which is generally accomplished by the time three or four doses are taken. The dose it will be observed is double the quantity of that given in intermittents, and is exhibited twice as often. It was Dr Hall of Baltimore, with whom the use of the Prussiat of Iron, in this disease, originated. He published an account of several cases successfully treated by it, in the Lyceum, a periodical work of that city. Doctor Young of Maryland, has also found it successful, in the same disease, and, Dr Thomas employed it with decided utility in three cases of Menorhagia, and in one of these cases it was not exhibited until after the acetate of lead had proved ineffectual. His account of the article will be found in the last edition of the American Dispensatory. This practice has not, I believe been followed by any other physicians; at least by none in this city. nor will it perhaps, so long as the Saccharum Saturni continues to evince those powers over the disease, which it has heretofore uniformly displayed. But if the acetate of Lead should happen to fail, and no circumstances existed to prevent the administration of the Prussiat of Iron, certainly, from the very respectable authority by which it comes recommended,

it would seem deserving of consideration, if not, entitled to a trial.

When I commenced the employment of the Prussiat of Iron in intermittent fever it was expected that the event would, at least, partially confirm the properties claimed for it, by its author. It, however, was not expected to accomplish to the whole extent, the qualities so lavishly assigned to it. For I was not unmindful of the ardour and enthusiasm, which almost invariably accompanies the publicity of supposed discoveries; and induces an author to imagine qualities, which a medicine does not possess, cures which it cannot accomplish, and a superiority over others, to which it is not entitled. I did not forget the peculiar aptitude of intermittents, to degenerate into complaints, more serious and alarming than the disease itself. Dr Chapman, in his lectures on intermittent fever, remarks "It is the imperious duty of the practitioner to cure this disease as speedily as possible. There is no disease more disagreeable to the patient, and though not immediatly fatal, it is apt to degenerate into complaints of a very serious character. Thus, intermittents often run into continued fevers, sometimes of a typhus nature; and nothing is

more common in children, than for them to terminate in hydrocephalus internus. The more common of the remote consequences, are, congestions of the viscera, scirrhous indurations; and cancer conjoined with dropsy, and other depravations of the system. Of all, perhaps, an effusion into some one or more of the cavities of the body, is, if not, the most frequent, certainly the most dangerous and troublesome consequences of protracted or ill cured intermittents. Aware of these important facts, it became a duty, independent of the caution and attention required for the primary purpose I had in view, to watch with more than common care the progress of the case.

It may be thought that a detailed statement of individual cases, would be more satisfactory and conclusive, that the observations are too general; and upon the whole, the account given, not sufficiently concise. If so, I can only say, that from the nature of the disease in which the Prussiat of Iron is recommended, I expected there must necessarily be much sameness, amounting almost to an entire repetition; and that a general statement would with but little difference, apply to each individual case. It was therefore under this impression intentionally omitted.

Since writing the foregoing, there has been published in the New York Medical and Physical Journal a paper entitled "A review of a treatise on the use of the Prussiat of Iron in intermitting and remitting fevers by Wm. Tellichoffer M.D. of Maryland. This it appears, is a review of a book published by Dr. I. and subsequently I presume to his paper in the Recorder. Of the existence of the book alluded, I was not aware, until I saw the review of it in the New York Journal, and from this it would seem to contain little more, than had been previously made public through the medium of several periodical journals. It in fact contains nothing new which is important, or which differs in the slightest degree from the statement first given, except, in detailing that which is there stated in a too condensed form.

The author of the review after ridiculing as he imagines, those who are opposed to the introduction of new medicines into the Materia Medica; adopts implicitly the supposed virtues of the Prussiat of Iron; and without further ceremony, presumes to place it among the number of articles of the "armoury of medicine" He does not appear to have used it in a solitary case but depends entirely on a statement which experience will fail to confirm.

Of the impropriety of an augmentation of medicines it does not belong to me to speak. But thus much I may be permitted to say, that if the medicines which are to be introduced into the Materia Medica, possess no more power in the diseases in which they may be recommended, than the Prussiat of Iron has evinced in intermittent fever, surely, they will be but sorry "additions" to it and had better not be made.

Dr Dellickoffer has it appears layed claim to the medical application of the Prussiat of Iron. here however he is mistaken, for independent of the book referred to by the reviewer; to disprove his claim; the more recent publication of the letter of Dr Thomas in the American Dispensatory, which is antecedent to the paper of L.O.L. is sufficiently conclusive.

Dont Cove